

HAMBURG.

(M. Rümker.)

	Hamburg M.T.	R.A.	Decl.
	<sup>h</sup> <sup>m</sup> <sup>s</sup>	<sup>°</sup> <sup>'</sup> <sup>''</sup>	<sup>°</sup> <sup>'</sup> <sup>''</sup>
Sept. 23	8 51 8	71 39 16.4	+44 13 55.0
24	8 54 27	73 9 45.6	44 52 30.8
Oct. 1	9 29 48	86 48 47.3	49 31 31.5
5	14 46 53	99 7 54.1	51 58 19.5
6	10 23 7	101 59 48.4	52 20 42.3
7	11 35 17	105 54 32.9	+52 43 15.9

PETERSEN'S SECOND COMET.

"On the evening of October 26, at 8 P.M. Dr. Petersen discovered a telescopic comet in the constellation *Draco*. It is tolerably large, and has an evident nucleus. It was carefully compared the same night with a small star, and its hourly motion found to be about + 11<sup>s</sup> in R.A. and + 1' 20" in N.P.D."

ALTONA.

(Professor Schumacher and Dr. Petersen.)

1848.	Altona M.T.	R.A.	Decl.
	<sup>h</sup> <sup>m</sup> <sup>s</sup>	<sup>h</sup> <sup>m</sup> <sup>s</sup>	<sup>°</sup> <sup>'</sup> <sup>''</sup>
Oct. 26	11 41 20.2	18 18 7.9	
	11 50 5.3		+63 11 53.3
Nov. 4	12 9 30.1	18 59 33.0	+57 45 41.6

BERLIN.

(Professor Encke.)

	Berlin M.T.	R.A.	Decl.	Arg. Zones.
	<sup>h</sup> <sup>m</sup> <sup>s</sup>	<sup>°</sup> <sup>'</sup> <sup>''</sup>	<sup>°</sup> <sup>'</sup> <sup>''</sup>	
Oct. 28	8 27 43.9	276 38 1.3	+62 12 32.6	
29	7 59 50.3	277 44 51.5	61 39 38.7	
30	7 33 28.4	278 52 19.7	61 5 34.8	
Nov. 2	9 58 47.2	282 26 33.9	59 10 29.2	
7	6 36 39.0	288 6 2.4	55 44 58.1	xvi, 8 : xxxviii, 8
8	8 29 47.8	289 21 14.8	54 54 43.8	— 32 — 23
9	6 28 32.7	290 25 23.7	54 10 39.6	— 24
10	9 21 36.2	291 43 31.2	+53 14 58.2	xiv, 53

"If in Zone xvi. 32, you read 20<sup>s</sup>.75 instead 19<sup>s</sup>.75, which Professor Encke thinks should be done, the R.A. of Nov. 8 must be diminished 7".5."

HAMBURG.

(M. Rümker.)

1848.	Hamburg M.T.	R.A.	Decl.
	<sup>h</sup> <sup>m</sup> <sup>s</sup>	<sup>h</sup> <sup>m</sup> <sup>s</sup>	<sup>°</sup> <sup>'</sup> <sup>''</sup>
Oct. 28	9 14 27	18 26 42.49	+62 11 10.1
29	10 37 24	31 33.52	61 35 29.0
Nov. 2	8 11 52	18 49 30.19	+59 13 8.5

Observations at Markree. (E. J. Cooper, Esq. & A. Graham, Esq.)

	G.M.T.	Comet's R.A.	$\div \Delta$	Comet's Decl.	$\div \Delta$
	<sup>h</sup> <sup>m</sup> <sup>s</sup>	<sup>h</sup> <sup>m</sup> <sup>s</sup>		<sup>°</sup> <sup>'</sup> <sup>"</sup>	
Nov. 1	10 28 25.3	18 45 24.19 + [9.8237]		+ 59 46' 48".1 + [0.5290]	
2	8 58 8.0	18 49 45.53 + [9.7765]		59 10 46.0 + [0.2510]	
3	7 54 38.4	18 54 12.53 + [9.6911]		58 32 54.1 + [9.9272]	
7	7 43 48.1	19 12 47.86 + [9.6345]		+ 55 41 5.0 + [0.0160]	

Nov. 1. Piazzi xviii. 220  
223 10 Comparisons by E. J. C. and A. G.

2. B.A.C. 6463 8 Comparisons by E. J. C. and A. G.

3. \* observed with circle 10 Comparisons by A. G.

App. R.A. 18<sup>h</sup> 52<sup>m</sup> 78.88

App. Dec. + 58° 33' 9".3

7. Observed with circle 10 Comparisons by A. G.

R.A. 19<sup>h</sup> 11<sup>m</sup> 178.23

Dec. + 55° 41' 2".9

### Elements.

By Professor Encke, from Berlin Observations of Oct. 28, 30, and Nov. 2.

T=1849, Jan. 19.68270 Berlin M.T.

Log.  $q$  = 9.982056

$\pi$  = 63 8' 16".7

$\Omega$  = 215 2 3.9

$i$  = 85 10 55.0. Motion direct.

By Dr. Petersen and M. Sonntag, from the Altona Observations of Oct. 26 and Nov. 4, and the Berlin Observation of Oct. 30.

Perihelion Passage, 1849, Jan. 20.08372 Berlin M.T.

Long. Perihelion ...	62 35' 15".3	} App <sup>t</sup> Eq <sup>s</sup> Oct. 30
— Node .....	214 40 30.4	
$i$ .....	85 26 21.7	

Log.  $q$  = 9.9840412. Motion direct.

Professor Schumacher says, — “ Dr. Petersen has tried several suppositions to make the present comet go through the estimated (they are not observed) places of the comet of 1780, but cannot represent the latitudes of 1780 within 40°. The three observations are mere estimations, and the time of the observations is also estimated and supposed to be 7<sup>h</sup>. Olbers has given these estimations under the following form :—

		Longitude.	North Lat.
1780.	<sup>h</sup>	<sup>°</sup> <sup>'</sup> <sup>"</sup>	<sup>°</sup> <sup>'</sup>
Oct. 18	7	viii 27 22	15 21
20	7	— 26 38	12 51
26	7	— 25 22	5 53½

“ According to Dr. Petersen's Elements, the present comet will

pass its descending node on the last day of this year, and only 0.02 distant from the earth's orbit. I am curious to know if more approximate elements will confirm this vicinity of the two orbits."

By Mr. Graham, from the Altona Observation of October 26 and the Markree places of November 1 and 7.

T 1849, January 22.52 G.M.T.

$\pi$  ..... 62° 6' 10"  
 $\Omega$  ..... 212 21 38  
 $i$  ..... 87 7 4  
 Log.  $q$  ..... 9.98940. Motion direct.

By Mr. Hind, from the Observations of October 26, 29, and November 4.

T 1849, January 20.69169

$\pi$  ..... 62° 4' 42"  
 $\Omega$  ..... 214 11 49  
 $i$  ..... 85 46 50  
 Log.  $q$  ..... 9.985266. Motion direct.

By M. George Rümker, from Altona Observation, Oct. 26, and Hamburg Observations, Oct. 29 and Nov. 2.

Perihelion Passage, 1849, Jan. 21.0162811 Greenwich M.T.

Long. Perihelion... 61° 50' 21"  
 — Node..... 214 0 54.7  
 Inclination ..... 85 54 48.5  
 Long. Per. Dist. 9.986144. Motion direct.

# Occultations of Stars by the Moon. By Mr. Snow, at Ashurst.\*

				Immersion.			Emersion.		
				h	m	s	h	m	s
1847.									
June 1	$\epsilon^1$ Sagittarii...	Ashurst ...	17	8	11.55	18	22	41.05	
1848.									
Feb. 12	75 Tauri .....	— ...	4	38	54	—			
May 7	67 Geminorum	— ...	13	9	16	—			
—	$k$ Geminorum	— ...	13	33	32	14	8	21	
July 11	$\theta$ Libræ .....	— ...	16	15	20.6	16	47	28.6	

The instrument used at Ashurst is a 5-foot equatoreal, aperture 4 inches. The time is Ashurst Sidereal Time.

" $\epsilon^1$  Sagittarii immersed, at the moon's bright limb, *slowly*, like a body with a disc. Emerged instantaneously.

"An emersion of *Aldebaran* was observed in London with a 3½-foot refractor, power 62. The star hung for about 5<sup>s</sup> on the moon's bright limb, but I saw no projection on the moon's surface. Definition very good."

\* Lat. 51° 15' 58" N. Long. 0<sup>h</sup> 1<sup>m</sup> 10<sup>s</sup>.1 W.